USGS science for a changing world

Earthquake Shaking **Yellow Alert**

GSN ANSS USAID FROM THE AMERICAN PEOPLE

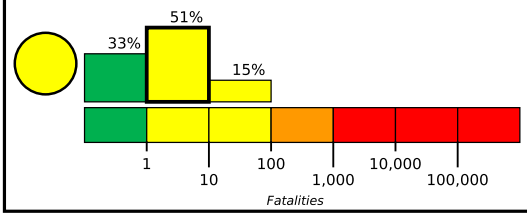
M 5.4, 3 km W of Hope Bay, Jamaica

Origin Time: 2023-10-30 15:57:20 UTC (Mon 10:57:20 local)
Location: 18.1934° N 76.6018° W Depth: 10.0 km

PAGER Version 8

Created: 3 weeks, 2 days after earthquake

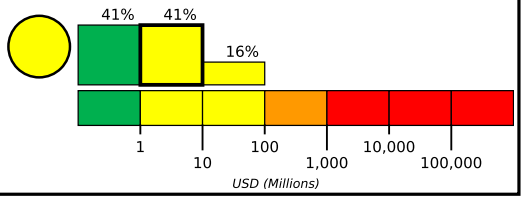
Estimated Fatalities



Yellow alert for shaking-related fatalities and economic losses. Some casualties and damage are possible and the impact should be relatively localized. Past yellow alerts have required a local or regional level response.

Estimated economic losses are less than 1% of GDP of Jamaica.

Estimated Economic Losses

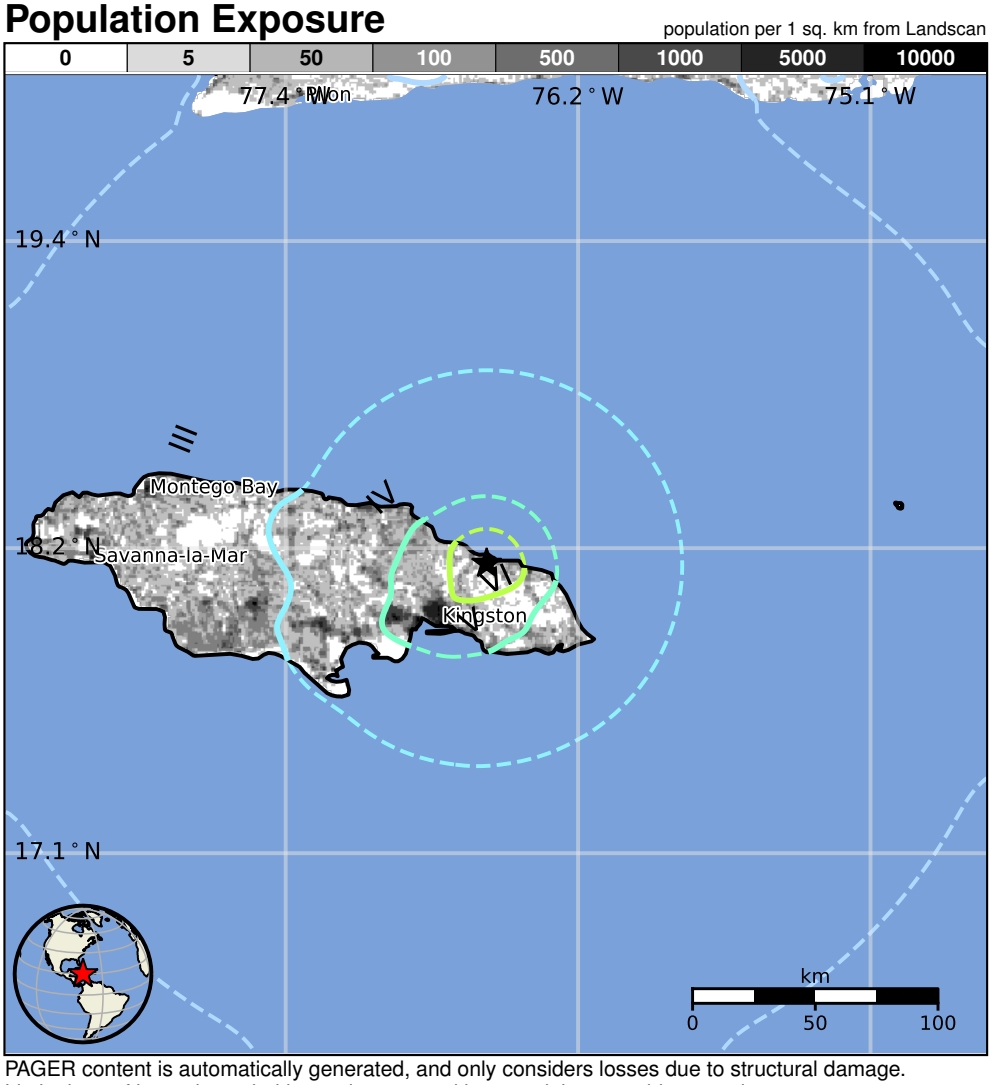


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	907k	742k	715k	585k	9k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are mud wall and adobe block construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1988-05-09	14	4.5	VI(10k)	0
1993-01-13	15	5.5	VII(2k)	1
1976-02-19	188	5.9	VII(5k)	1

Selected City Exposure

from GeoNames.org

MMI	City	Population
VII	Buff Bay	3k
VII	Hope Bay	2k
VI	Mona Heights	3k
VI	Half Way Tree	19k
VI	New Kingston	584k
VI	**Kingston**	**938k**
V	Spanish Town	145k
IV	May Pen	45k
IV	Mandeville	47k
III	**Savanna-la-Mar**	**17k**
III	**Montego Bay**	**83k**

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

https://earthquake.usgs.gov/earthquakes/eventpage/us7000l7jv#pager

Event ID: us7000l7jv